

# SAC-4P-M12MS/10,0-990/M12FS - Bus system cable



1558454

<https://www.phoenixcontact.com/us/products/1558454>

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Bus system cable, CC link (10 Mbps), 4-position, PVC, red, shielded, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 10 m

## Commercial data

Item number	1558454
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF04
Product key	BF1CJF
Catalog page	Page 401 (PC-2011)
GTIN	4046356293785
Weight per piece (including packing)	740 g
Weight per piece (excluding packing)	742.3 g
Customs tariff number	85444290
Country of origin	PL

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## Technical data

### Product properties

Product type	Data cable preassembled
Application	Standard
Sensor type	CC link
Number of positions	4
No. of cable outlets	1
Coding	A

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Interfaces

Signal type/category	CC link, 10 Mbps
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### Signaling

Status display	no
Status display present	No

### Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	48 V AC
	60 V DC
Nominal current $I_N$	4 A
Transmission medium	Copper

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	$\geq 100$
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### Material specifications

Flammability rating according to UL 94	HB
Seal material	NBR
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material for screw connection	Zinc die-cast, nickel-plated

### Connection data

#### Pin assignment

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Contact   Color (signal designation)   Contact (optional)	1 (Plug)   SR (shield)   1 (Socket)
	2 (Plug)   WH (DB)   2 (Socket)
	3 (Plug)   YE (DG)   3 (Socket)
	4 (Plug)   BU (DA)   4 (Socket)

## Connector

### Connection 1

Type	Plug straight M12
Number of positions	4
Coding type	A (Standard)

### Connection 2

Type	Socket straight M12
Number of positions	4
Coding type	A (Standard)

## Cable/line

Cable length	10 m
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### CC-Link [990]

Cable weight	78.8 kg/km
Number of positions	3
Shielded	yes
Cable type	CC-Link [990]
Conductor structure	3xAWG20/7 + 1xAWG22/19 (filler litz wire)
Conductor structure signal line	7x 0.28 mm
AWG signal line	20
Conductor cross section	0.5 mm <sup>2</sup>
External cable diameter	7.70 mm
Outer sheath, material	PVC
External sheath, color	red
Conductor material	Bare Cu litz wires
Material wire insulation	foamed PE, with high density
Single wire, color	white, yellow, blue
Thickness, insulation	0.89 mm (Outer cable sheath)
Optical shield covering	78 %
Max. conductor resistance	31.2 Ω/km
Wave impedance	110 Ω
Working capacitance	61 pF
Nominal voltage, cable	300 V
Smallest bending radius, fixed installation	77 mm
Ambient temperature (operation)	-30 °C ... 60 °C (cable, fixed installation)
	-5 °C ... 60 °C (Cable, flexible installation)

## Environmental and real-life conditions

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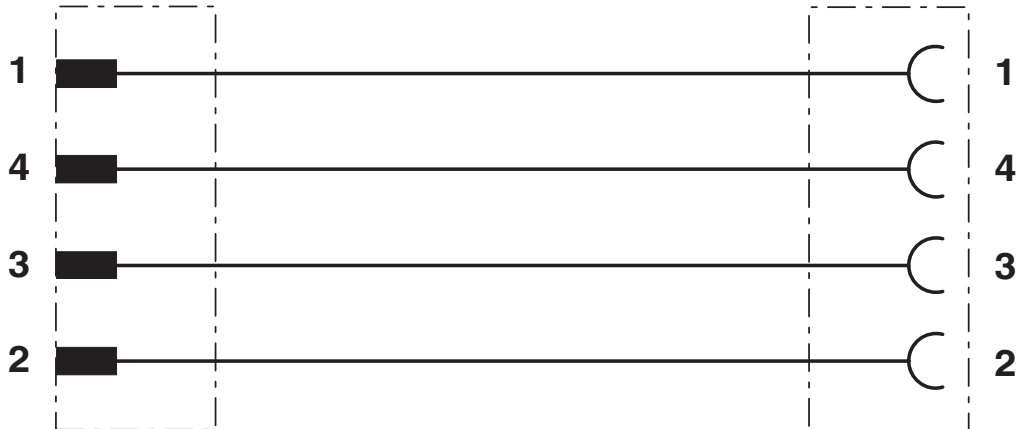
<https://www.phoenixcontact.com/us/products/1558454>

## Ambient conditions

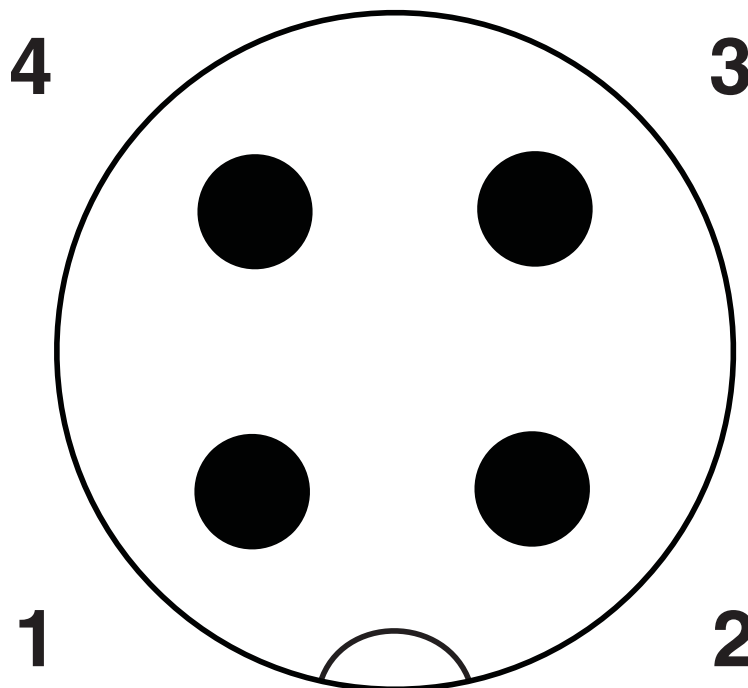
Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)

Drawings

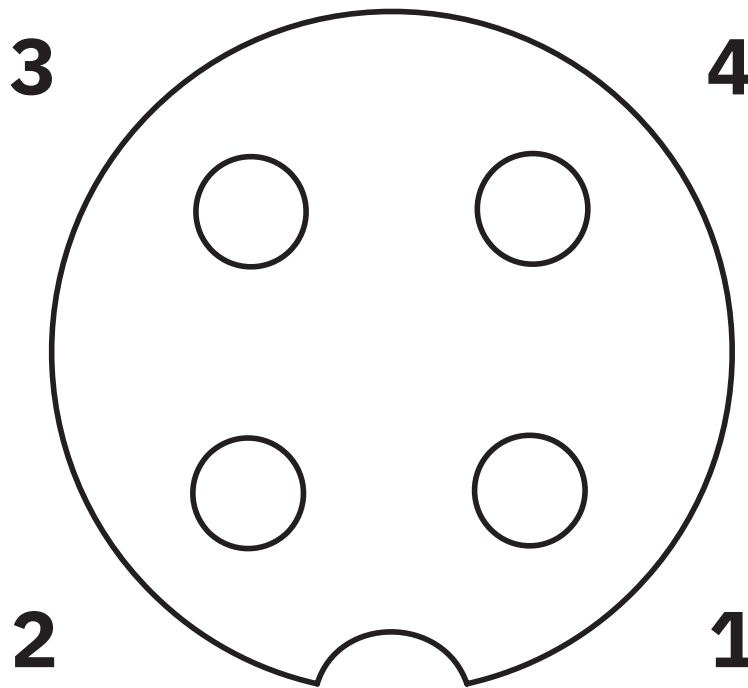
Circuit diagram



Schematic diagram

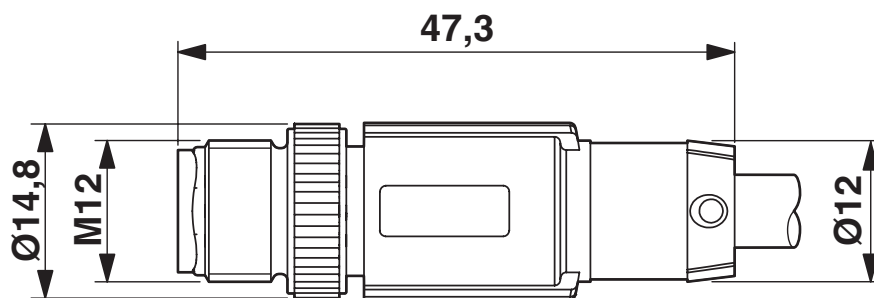


Schematic diagram



Pin assignment M12 socket, 4-pos., A-coded, view female side

Dimensional drawing



Plug, M12 x 1, straight, shielded

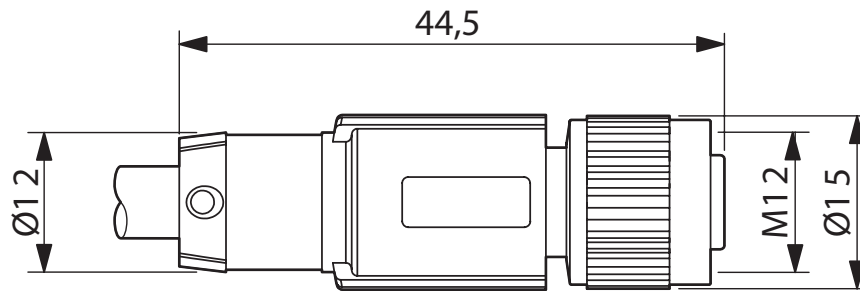
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Dimensional drawing



M12 x 1 socket, straight, shielded

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1558454>



**EAC-RoHS**

Approval ID: RU D-DE.HB35.B.00387



**cULus Listed**

Approval ID: E221474



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## Classifications

### ECLASS

ECLASS-11.0	27060307
ECLASS-12.0	27060307
ECLASS-13.0	27060307

### ETIM

ETIM 9.0	EC001855
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### UNSPSC

UNSPSC 21.0	26121600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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